

Amendment to the Claims

1-12. (Cancelled)

13. (Currently Amended) A plasma processing method comprising:

supplying electric power to ~~one of a~~ high frequency first and second electrode;

making ~~the other of the first and second~~ another electrode have a ground potential, ~~or~~

~~making the other of the first and second electrode have a floating potential~~ while supplying gas to a plasma source arranged in the vicinity of an object to be processed at a pressure ~~in the vicinity of atmospheric pressure~~ a range of 10000 Pa to approximately three atmospheres; and

processing a part of the object to be processed with a plasma, while supplying electric power to ~~at least one of the first electrode and the second electrode~~ the high frequency electrode, wherein an area defined by an entire surface of the ~~high frequency potentially controlled first or second electrode~~ or the grounded electrode, which is arranged in a position opposite to the plasma source via the object to be processed, is smaller than an area defined by the perimeter of a surface of the plasma source superposed on the object to be processed, and a length in any direction of the area of the entire surface of the ~~potentially controlled first or second~~ high frequency or grounded electrode, which is arranged in the position opposite to the plasma source via the object to be processed, is smaller than a length in any direction of the area defined by the perimeter of the surface of the plasma source that is superposed on the object to be processed such that the area of ~~the potentially controlled first or second~~ the high frequency or grounded electrode that opposes the plasma source is smaller than the area defined by the perimeter of the surface of the plasma source that is superposed on the object,

wherein the high frequency or grounded electrode, which is arranged in the position opposite to the plasma source via the object to be processed, includes a plurality of electrodes which are movable relative to the object to be processed; and

moving the high frequency or grounded electrode, which is arranged in the position opposite to the plasma source via the object to be processed, toward or away from the object and controlling the electric potential of less than all of the plurality of electrodes to generate plasma on the object in a desired configuration.

14. (Currently Amended) The plasma processing method as claimed in claim 13, ~~wherein the second electrode is constructed of a plurality of electrodes, and the object to be processed is processed with a plasma in a configuration by selectively potentially controlling the plurality of electrodes, wherein each of the plurality of electrodes are independently controlled to permit less than all of the plurality of electrodes to be moved toward the object.~~

15. (Cancelled)

16. (Currently Amended) The plasma processing method as claimed in claim 13, wherein the object to be processed is processed with a plasma into the desired configuration by selectively bringing arbitrary ~~microelectrodes~~ ones of the plurality of electrodes ~~close to~~ within a range of 0.05 mm to 0.5 mm from the object to be processed.

17. (Previously Presented) The plasma processing method as claimed in claim 13, wherein the object to be processed has a substrate or a thin film of a volume resistivity of not smaller than 10^{-6} (Ω -cm).

18. (Previously Presented) The plasma processing method as claimed in claim 13, wherein the object to be processed has a substrate or a thin film of a volume resistivity of not smaller than 10^{-8} (Ω -cm).

19. (Currently Amended) The plasma processing method as claimed in claim 13, wherein positions of the plasma source and the high frequency electrode ~~potentially controlled second electrode~~ are displaced relative to the object to be processed.

20. (Previously Presented) The plasma processing method as claimed in claim 13, wherein the gas includes at least any one of inert gases of He, Ar, Ne, and Xe.

21. (Currently Amended) The plasma processing method as claimed in claim 13, wherein the gas includes a gas of C_xF_y (x and y are natural numbers) ~~or such as SF_6 , and CF_4~~ , NF_3 , O_2 , Cl_2 , or a halogen containing gas of HBr ~~or the like as reactive etching gas~~.

22. (Currently Amended) A plasma processing method comprising:

providing an object to be processed between a plasma source and a second electrode, wherein the plasma source includes a first electrode and the second electrode is potentially controlled in a position opposite to the plasma source, wherein the second electrode includes a plurality of electrodes which are movable relative to the object to be processed; and

supplying a high-frequency electric power to the first electrode while supplying gas from a gas supply unit to the object to be processed at a pressure in a range of 10000 Pa to approximately three atmospheres ~~the vicinity of atmospheric pressure~~ to generate plasma on a part of the object to be processed,

wherein the longest dimension of the area defined by the surface of the potentially controlled second electrode that is superposed on the object to be processed is smaller than the shortest dimension of an area defined by the perimeter of the opposing side of the object, and the plasma is generated in a desired configuration by controlling the electric potential of less than all of the plurality of electrodes.

23. (Cancelled)

24. (Currently Amended) The plasma processing method as claimed in claim 22, wherein ~~the second electrode comprises a plurality of microelectrodes~~ the electric potential of each of the plurality of electrodes can be independently and selectively controlled, and the object to be processed is processed by potentially controlling selected ones of the ~~microelectrodes~~ plurality of electrodes.

25. (Currently Amended) The plasma processing method as claimed in claim 22, wherein ~~the second electrode comprises a plurality of potentially controlled electrodes, each of the plurality of electrodes are independently and selectively controlled,~~ and the object to be processed is processed by selectively bringing arbitrary ones of the potentially controlled electrodes ~~close to~~ within a range of 0.05 mm to 0.5 mm from the object to be processed.

26. (Previously Presented) The plasma processing method as claimed in claim 22, wherein the object to be processed has a substrate or a thin film of a volume resistivity of not smaller than 10^{-6} (Ω -cm).

27. (Previously Presented) The plasma processing method as claimed in claim 22, wherein the object to be processed has a substrate or a thin film of a volume resistivity of not smaller than 10^{-8} (Ω -cm).

28. (Previously Presented) The plasma processing method as claimed in claim 22, wherein positions of the plasma source and the potentially controlled second electrode can be displaced relative to the object to be processed.

29. (Previously Presented) The plasma processing method as claimed in claim 22, wherein the gas includes at least any one of inert gases of He, Ar, Ne, and Xe.

30. (Currently Amended) The plasma processing method as claimed in claim 22, wherein the gas includes a gas of C_xF_y (x and y are natural numbers) or such as ~~SF₆, and CF₄~~, NF₃, O₂, Cl₂, or a halogen containing gas of HBr ~~or the like as reactive etching gas~~.